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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,594	09/28/1999	GARY M. KING	PO9-99-147	2954

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BLANCHE E SCHILLER ESQ
HESLIN & ROTHENBERG PC
5 COLUMBIA CIRCLE
ALBANY, NY 12203

EXAMINER

PHAM, THOMAS K

ART UNIT PAPER NUMBER

2121

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/407,594

Applicant(s)

KING ET AL.

Examiner

Thomas K Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-17, 20-28, and 31 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 18, 19, 29 and 30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 & 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Notice to Applicant(s)

1. Claims 1-31 of U.S. Application 09/407594 filed on 09/28/1999 are presented for examination.

DETAILED ACTION

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellsworth et al. U.S. Patent No. 6,453,344 (hereinafter Ellsworth).
4. As for claim 1, Ellsworth shows a method of managing logical processors of a computing environment, said method comprising: configuring a logical partition of said computing environment with one or more logical processors (col. 6 lines 1-5); and dynamically adjusting the configuration (col. 5 lines 1-7).

5. As for claim 2, Ellsworth shows the method of claim 1, wherein said dynamically adjusting is in response to workload of said logical partition (col. 5 lines 15-23).
6. As for claim 3, Ellsworth shows the method of claim 1, wherein said dynamically adjusting comprises increasing a number of logical processors allocated to said logical partition (col. 5 lines 24-31).
7. As for claim 4, Ellsworth shows the method of claim 1, wherein said dynamically adjusting comprises decreasing a number of logical processors allocated to said logical partition (col. 6 lines 50-54).
8. Claims 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellsworth et al. U.S. Patent No. 6,453,344 (hereinafter Ellsworth).
9. As for claim 11, Ellsworth shows a system of managing logical processors of a computing environment, said system comprising: means for configuring a logical partition of said computing environment with one or more logical processors (col. 6 lines 1-5); and means for dynamically adjusting the configuration (col. 5 lines 1-7).
10. As for claim 12, Ellsworth shows the system of claim 11, wherein said means for dynamically adjusting is in response to workload of said logical partition (col. 5 lines 15-23).
11. As for claim 13, Ellsworth shows the system of claim 11, wherein said means for dynamically adjusting comprises means for increasing a number of logical processors allocated to said logical partition (col. 5 lines 24-31).

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12. As for claim 14, Ellsworth shows the system of claim 11, wherein said means for dynamically adjusting comprises means for decreasing a number of logical processors allocated to said logical partition (col. 6 lines 50-54).

13. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Ellsworth et al. U.S. Patent No. 6,453,344 (hereinafter Ellsworth). Ellsworth shows a system of managing logical processors of a computing environment, said system comprising: a processor adapted to configure a logical partition of said computing environment with one or more logical processors (col. 6 lines 1-5); and a processor adapted to dynamically adjust the configuration (col. 5 lines 1-7).

14. Claims 22-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellsworth et al. U.S. Patent No. 6,453,344 (hereinafter Ellsworth).

15. As for claim 22, Ellsworth shows at least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of managing logical processors of a computing environment, said method comprising: configuring a logical partition of said computing environment with one or more logical processors (col. 5 lines 1-7); and dynamically adjusting the configuration (col. 5 lines 1-7).

16. As for claim 23, Ellsworth shows the at least one program storage device of claim 22, wherein said dynamically adjusting is in response to workload of said logical partition (col. 5 lines 15-23).

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17. As for claim 24, Ellsworth shows the at least one program storage device of claim 22, wherein said dynamically adjusting comprises increasing a number of logical processors allocated to said logical partition (col. 5 lines 24-31).

18. As for claim 25, Ellsworth shows the at least one program storage device of claim 22, wherein said dynamically adjusting comprises decreasing a number of logical processors allocated to said logical partition (col. 6 lines 50-54).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 5-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellsworth in view of George et al. U.S. Patent No. 5,659,786 (hereinafter George).

21. As for claim 5, Ellsworth does not specifically show the method of claim 1, further comprising determining that said configuration is to be adjusted. However, George shows the method further comprising determining that said configuration is to be adjusted (col. 4 lines 51-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for adjusting the configuration as necessary according to the determining algorithm in order to meet system requirement in processing scheduled loads.

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22. As for claim 6, Ellsworth does not specifically show the method of claim 5, wherein said determining is performed at a plurality of time intervals. However, George shows the method wherein said determining is performed at a plurality of time intervals (col. 3 lines 54-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for periodically running the algorithm of determining reconfiguration logical processors in order to obtain the best performance based on the different loads at different time interval.

23. As for claim 7, Ellsworth does not specifically show the method of claim 5, wherein said determining comprises using a predefined equation in making the determination. However, Ellsworth shows the algorithm steps for dynamic CPU configuration (col. 7 line 42-44). It would be obvious to one of ordinary skill in the art at the time the invention was made to know that there is at least one predefined equation involved as part of the algorithm presented by Ellsworth in order to calculate the number of logical processors based on the number of physical CPUs and the offline/online processors currently exist in the system.

24. As for claim 10, Ellsworth does not specifically show the method of claim 7, wherein said determining further comprises comparing a result of said predefined equation with one or more thresholds to determine whether the adjustment is to be made. However, George shows the method wherein said determining further comprises comparing the reconfiguration action with the reconfiguration policy to make sure it within one or more thresholds that will not violate the predefined policy (col. 7 lines 1-17). It would have obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for

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setting a limit to the determination process of when a reconfiguration of logical processors should take place in order to gain the benefit of better system performance.

25. Claims 15-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellsworth in view of George et al. U.S. Patent No. 5,659,786 (hereinafter George).

26. As for claim 15, Ellsworth does not specifically show the system of claim 11, further comprising means for determining that said configuration is to be adjusted. However, George shows the system further comprising determining that said configuration is to be adjusted (col. 4 lines 51-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for adjusting the configuration as necessary according to the determining algorithm in order to meet system requirement in processing scheduled loads.

27. As for claim 16, Ellsworth does not specifically show the system of claim 15, wherein the determining is performed at a plurality of time intervals. However, George shows the system wherein determining is performed at a plurality of time intervals (col. 3 lines 54-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for periodically running the algorithm of determining reconfiguration logical processors in order to obtain the best performance based on the different loads at different time interval.

28. As for claim 17, Ellsworth does not specifically show the system of claim 15, wherein said means for determining comprises means for using a predefined equation in making the determination. However, Ellsworth shows the algorithm steps for dynamic CPU configuration

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(col. 7 line 42-44). It would be obvious to one of ordinary skill in the art at the time the invention was made to know that there is at least one predefined equation involved as part of the algorithm presented by Ellsworth in order to calculate the number of logical processors based on the number of physical CPUs and the offline/online processors currently exist in the system.

29. As for claim 20, Ellsworth does not specifically show the system of claim 17, wherein said means for determining further comprises means for comparing a result of said predefined equation with one or more thresholds to determine whether the adjustment is to be made.

However, George shows the system wherein said determining further comprises comparing the reconfiguration action with the reconfiguration policy to make sure it within one or more thresholds that will not violate the predefined policy (col. 7 lines 1-17). It would have obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for setting a limit to the determination process of when a reconfiguration of logical processors should take place in order to gain the benefit of better system performance.

30. Claims 26-28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellsworth in view of George et al. U.S. Patent No. 5,659,786 (hereinafter George).

31. As for claim 26, Ellsworth does not specifically show the at least one program storage device of claim 22, wherein said method further comprises determining that said configuration is to be adjusted. However, George shows the method further comprising determining that said configuration is to be adjusted (col. 4 lines 51-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth

because it would provide for adjusting the configuration as necessary according to the determining algorithm in order to meet system requirement in processing scheduled loads.

32. As for claim 27, Ellsworth does not specifically show the at least one program storage device of claim 26, wherein the determining is performed at a plurality of time intervals.

However, George shows the at least one program storage device wherein said determining is performed at a plurality of time intervals (col. 3 lines 54-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for periodically running the algorithm of determining reconfiguration logical processors in order to obtain the best performance based on the different loads at different time interval.

33. As for claim 28, Ellsworth does not specifically show the at least one program storage device of claim 26, wherein said determining comprises using a predefined equation in making the determination. However, Ellsworth shows the algorithm steps for dynamic CPU configuration (col. 7 line 42-44). It would be obvious to one of ordinary skill in the art at the time the invention was made to know that there is at least one predefined equation involved as part of the algorithm presented by Ellsworth in order to calculate the number of logical processors based on the number of physical CPUs and the offline/online processors currently exist in the system.

34. As for claim 31, Ellsworth does not specifically show the at least one program storage device of claim 28, wherein said determining further comprises comparing a result of said predefined equation with one or more thresholds to determine whether the adjustment is to be made. However, George shows the at least one program storage device wherein said determining

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further comprises comparing a result of said predefined equation with one or more thresholds to determine whether the adjustment is to be made (col. 7 lines 1-17). It would have obvious to one of ordinary skill in the art at the time the invention was made to combine George with Ellsworth because it would provide for setting a limit to the determination process of when a reconfiguration of logical processors should take place in order to gain the benefit of better system performance.

Allowable Subject Matter

35. Claims 8-9, 18-19 and 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thomas Pham; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874. The examiner can normally be reached on Monday-Friday from 7:30AM- 4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *John Follansbee*, can be reached on (703) 305-8498 or via e-mail addressed to *[joh.follansbee@uspto.gov]*. The fax number for this Group is (703) 308-5403.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[thomas.pham@uspto.gov]**.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.



**JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**

Thomas K. Pham
Patent Examiner

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March 5, 2003